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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,452	11/28/2001	Praveen K. Saxena	270.60USWO	2097

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EXAMINER
PARA, ANNENETTE H

ART UNIT PAPER NUMBER
1661

DATE MAILED: 05/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/937,452	SAXENA ET AL.
	Examiner	Art Unit
	Annette H. Para	1661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-48 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Applicant's election with traverse of *Hypericum perforatum* in paper No. 8 is acknowledged. The traversal is on the ground that the election requirement as set forth in the Office action of 01/15/2003 is improper because in examining the generic claims the examiner will necessarily have to consider non-elected as well as elected species.

Applicants' arguments regarding the coexamination of all species are not found persuasive because of the following reason: the examiner will have to search for 80 different plant species. The search for 80 different species will be a long search and not a reasonable one. Examiner is going to examine the generic claims for the *Hypericum perforatum* plant species but not for the other species listed on them.

Therefore, the restriction requirement between the four different plant species is still deemed proper and is therefore made FINAL.

Claims 1-48 are pending. Claims 1-18, and 40-48 are under examination. Claims 19-39 are withdrawn from consideration as being drawn to a non-elected invention.

Claim Rejection - 35 U.S.C. 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 and 40-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "additive of interest" is in the "subculturing" step when it is in the "culturing" step in claim 4.

Claim 2, is unclear in the recitation "optimized formation", optimized in what way?

Claim 7 is confusing in its use of multiple names for growth regulators.

Claim 9, the word "one" is missing before the recitation "plant growth regulator".

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Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C.103(c) and potential 35 U.S.C.102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 47 is rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Cellarova et al. Cellarova et al. disclose a method for the in vitro propagation of a *Hypericum perforatum* plant on a medium comprising macroelements and microelements, 6-benzyladenine. This plant grown in medium comprising added macronutrients and micronutrient will contain a more elevated level of these nutrients than if grown on a basic medium. As a plant grown in soil contain more microelement than a plant grown in sterile water. The claim and Cellarova et al. state the same characteristics for the resultant *Hypericum perforatum* plant. Thus, the claimed invention as a whole was at least *prima facie* obvious over, if not anticipated by, the prior art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-18, 40, 42-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stojakowska et al. in view of Murthy et al. and further in view of Cellarova et al.

Stojakowska et al. disclose a method for the in vitro propagation of a phytopharmaceutical plant comprising culturing a sterile explant of said plant on an induction medium comprising 6-benzyladenine and transferring said regenerated tissue to a basal medium and culturing to form plantlets, transferring said plantlets into liquid MS medium comprising microelement such as Fe, Cu, Mn, Zn, etc. Stojakowska et al. do not disclose the use of thidiazuron as a plant growth regulator and do not disclose using this method of propagation with St John's wort. Murthy et al. disclose a method of in vitro propagation on an induction medium comprising plant growth regulator consisting of Thidiazuron (entire document). Murthy et al. also teach the accumulation of mineral ions due to thidiazuron (page 273, column 1, TDZ and stress). Cellarova et al. teach in vitro cultures of *Hypericum perforatum*, which are very effective (page

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268). Cellarova et al. describe *Hypericum perforatum* as being a highly regenerative plant species in vitro. Cellarova et al. do not teach a medium comprising of thidiazuron.

It would have been obvious to modify the method of Stojakowska et al. by including thidiazuron as a plant growth regulator as taught by Murthy et al. because it helps in the accumulation of micronutrient in plants and to apply this method to *Hypericum perforatum*. One would have been motivated to do so, given the importance of Hypericum as an important source of pharmaceuticals. It would have been obvious to add Thidiazuron to the growth medium knowing that plants accumulate micronutrient when grown in medium rich in these elements. Reasonable expectation of success would have been expected knowing that Hypericum is a highly regenerative plant. Therefore the skilled artisan would have expected that adding these ingredients would have increased the regeneration pattern of Hypericum. Thus, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

Claims 1-18 and 40-43 are rejected.

Claim 41 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Future Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette H. Para whose telephone number is (703) 308-6327. The Examiner can normally be reached Monday through Thursday from 6:00 am to 4:30 pm.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Bruce Campell, can be reached on (703) 308-4205. The fax number for the group is (703) 305-3014 or (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application should be directed to the Matrix Customer Service Center whose telephone number is (703) 308-0196.

A.H.P



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